	ARMY RDT&E BUDGET ITEM	JUSTIFI	CATIO	N (R-2	Exhibi	it)	Fe	bruary 2	002	
вирбет. 7 - Оре .	ACTIVITY rational system development	development PE NUMBER AND TITLE 0208010A - Joint Tactical Communications Program (TRI- TAC)								
	COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	35423	21428	14121	10822	10667	6318	8279	Continuing	Continuing
01D	TACTICAL INTERNET MANAGEMENT SYSTEM	(0	4888	4626	1488	0	0	0	11002
107	ISYSCON DEVELOPMENT	35423	21428	9233	6196	9179	6318	8279	Continuing	Continuing

A. Mission Description and Budget Item Justification: A requirement exists to automate Signal Corps units' capability to manage multiple tactical communications systems in support of battlefield operations. The Integrated System Control (ISYSCON) facility will provide centralized management of the tactical communications network, establish an interface with each technical control facility in the Army Battlefield Command System (ABCS) architecture, and enable automated configuration and management in a dynamic battlefield data network, provided by MSE and the ACUS MOD Programs. ISYSCON is being developed with incremental software releases. The ISYSCON Program serves as a baseline foundation to support future network management initiatives tied to and part of the digitized division and the Warfighter Information Network (WIN) Architecture. This program element will also interface with the WIN-Tactical Architecture and Network Management Facilities.

The ISYSCON (V)4 Tactical Internet Management System (TIMS) is also being developed to facilitate network planning and management of the Tactical Internet at Brigade and Below, as well as the Tactical Operations Centers (TOC) and Command Posts (CP) Local Area Network (LAN) at all required Echelons.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit) BUDGET ACTIVITY 7 - Operational system development PE NUMBER AND TITLE 0208010A - Joint Tactical Communications Program (TRI-TAC)

B. Program Change Summary	FY 2001	FY 2002	FY 2003
President's Previous Budget (FY 2002 PB)	38563	21615	12150
Appropriated Value	38926	21615	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-187	0
b. SBIR / STTR	-1147	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	-2000	0	0
e. Rescissions	-356	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	1971
Current Budget Submit (FY 2003 PB)	35423	21428	14121

FY03 Adjustments to Budget Years reflect \$1.971M plus up for testing.

	ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) February 2002											
	ACTIVITY rational system development		PE NUMBER AND TITLE 0208010A - Joint Tactical Communications Program (TRI-TAC) PROJECT 01D									
	COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost		
01D	TACTICAL INTERNET MANAGEMENT SYSTEM		0 0	4888	4626	1488	0	0	0	11002		

A. Mission Description and Budget Item Justification: The Integrated System Control(ISYSCON)(V)4/Tactical Internet Management System (TIMS) is being developed to do network planning and management of the Tactical Internet at Brigade and Below (Force Battle Command Brigade & Below-FBCB2), as well as the Tactical Operation Center (TOC) and Command Post (CP) Local Area Network (LAN) at all required Echelons. Starting in FY03, TIMS funding transitions to this new Project 01D from the ISYSCON (V)1/(V)2 Project D107.

The TIMS system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

Project begins in FY2003, FY2001 funding contained in ISYSCON PE 0208010A/Project 107

FY 2002 Planned Program

Project begins in FY2003, FY2002 funding contained in ISYSCON PE 0208010A/Project 107

FY 2003 Planned Program

- 1178 TIMS Initiate Test & Evaluation (Release 4.0)
- 980 TIMS Initiate Requirement Analysis (Release 4.0)
- 1100 TIMS Initiate Systems Engineering (Release 4.0)
- 1630 TIMS Initiate Software Development (Release 4.0)

Total 4888

ARMY RDT&E BUDGET ITEM .	ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) February 2002												
BUDGET ACTIVITY 7 - Operational system development					ıl Commı	ommunications Program 01D							
B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost				
BX0007 ISYSCON	28816	32198	31366	18787	15691	5026	3047	Continuing	Continuing				
0208010, Proj 107, ISYSCON	14726	7220	0	0	0	0	0	Continuing	Continuing				
B93900 TIMS	0	0	11842	16363	4656	4647	4440	0	41948				

C. Acquisition Strategy: The Tactical Internet Management System (ISYSCON (V)4/TIMS) was developed from Army Warfighter Experiments that showed tactical network management and planning to be extre mely time consuming. A DD-2028 change to the ISYSCON Requirement Operational Capability (ROC) identified the need for Tactical Internet and Tactical Operation Command (TI and TOC) Local Area Network management. In Mar 99, PDM, Communications Systems Management (CMS) signed a delivery order under the PM, Force XXI Battle Command Brigade and Below (FBCB2) contract with TRW in response to the DD-2028 requirements. Raytheon is under contract to develop an Enhanced Position/Location Reporting System Network Manager (ENM) capability while TRW will develop the remaining TIMS functionality (TOC LAN MGT, Router Configurations, Tactical Internet Configurer/Tactical Internet Designer, etc) and integrate the ENM software onto a single platform. The TIMS is closely coupled to FBCB2 program events. An Operation Requirements Document (ORD) is in development to supercede the ISYSCON ROC/2028 Change and will be approved in 2QFY02. Release 1 of TIMS software was formally tested at the contractor's facility prior to the FBCB2 Customer Test (Apr 00). Release 2.1 was used for the FBCB2 Limited User Test 2 (DCX-1). Milestone C Limited Deployment was approved June 21, 2001. Release 2.2F was assessed at TIMS LUT2A in Dec 01. Software Release 2.5 IOT&E is scheduled for 1QFY03. Full Rate Production & Material Release 2.5 for TIMS is scheduled for 4QFY03. TIMS Release 4.0 will be issued in yearly PDSS.

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
TIMS IOT&E Release 2.5			1Q				
TIMS Initiate Release 4.0			2-4Q				
TIMS Full Rate Production (Release 2.5)			4Q				
TIMS Material Release (Release 2.5)			4Q				
TIMS (Release 4.0)				1-4Q			

			020	8010A - J		cal Comr	municatio	D		PROJEC 01D				
	oduct Development Contract Performing Activity & Total PYs Cost													
Туре		PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Targe Value o Contrac			
a . TIMS Software CPFF/1 Development	&M TRW, Carson, CA	0	0		0		3445	1Q	Continue	Continue	(
Subtotal:		0	0		0		3445		Continue	Continue	(
II. Support Cost Contrac Method Type		& Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Targe Value o Contrac			
		0	0		0		0		0	0				
Subtotal:		Ů.	Ü		U		ď		0	· ·	·			

	ARM	Y RDT&E CO	ST AN		, ,				Febi	ruary 200		
BUDGET ACTIVITY 7 - Operational system	m developn	nent		020	umber ani 8010A - J R I-TAC)		ical Comi	nunicatio	project 01D			
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Targe Value of Contrac
Subtotal:			0	0		0		0		0	0	(
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Targe Value of Contrac
a . TIMS Contractor Engr	See Remarks	Misc.	0	0		0		351	2Q	Continue	Continue	(
b . TIMS Government Engr	MIPR	Misc.	0	0		0		948	2Q	Continue	Continue	(
c . TIMS PM Support Core	MIPR	PM, WIN-T	0	0		0		64	2Q	Continue	Continue	(
d . TIMS Travel	MIPR	MISC	0	0		0		80	1-4Q	Continue	Continue	(
Subtotal:			0	0		0		1443		Continue	Continue	(
Project Total Cost:			0	0		0		4888		Continue	Continue	(

ARMY RDT&E BUDGET ITEM JU	STIFI	CATIO	N (R-2	A Exhi	bit)	Fe	bruary 2	002	
BUDGET ACTIVITY 7 - Operational system development		PE NUMBER . 0208010A (TRI-TAC	- Joint Ta		ommunica	ntions Pro	gram	PROJECT 107	
COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
107 ISYSCON DEVELOPMENT	3542	21428	9233	6196	9179	6318	8279	Continuing	Continuing

A. Mission Description and Budget Item Justification: A requirement exists to provide Signal Corps units the automated capability to manage multiple tactical communication systems in support of battlefield operations. The Integrated System Control (ISYSCON) facility will provide centralized management of the tactical communication network, establish an interface with each technical control facility in the Army Battlefield Command System (ABCS) architecture, and enable automated configuration and management in a dynamic battlefield data network, provided by MSE and the ACUS MOD Programs. ISYSCON is being developed with incremental software releases. The ISYSCON Program serves as a baseline foundation to support future network management initiatives tied to and part of the digitized division and the Warfighter Information Network (WIN) architecture. This program element will also interface with the WIN-Tactical Architecture and Network Management Facilities.

The ISYSCON (V)4 Tactical Internet Management System (TIMS) is also being developed to do network planning and management of the Tactical Internet at Brigade and Below (Force Battle Command Brigade & Below), as well as the Tactical Operation Center Local Area Network (TOC LAN). Starting in FY03, TIMS funding transitions to a new Project, D01D, within PE 208010A.

The Joint Network Management System (JNMS) is a Commander in Chief (CINC), Commander Joint Task Force (CJTF) communications planning and management tool. It provides the capability to conduct high level planning (war planning); detailed planning and engineering; monitoring; control and reconfiguration; spectrum planning and management; and security of networks, in support of joint operations. The JNMS will be developed in phases: System Architecture, Key Performance Parameters (KPP) Threshold, and Threshold and Objective. JNMS funding transitioned to a separate Program Element (64783) and Project (D363) in FY02.

The ISYSCON and TIM systems support the Legacy transition path of the Transformation Campaign Plan (TCP). The JNMS system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

	GET ACTIV Operation	VITY nal system development	PE NUMBER AND TITLE 0208010A - Joint Tactical Communicati (TRI-TAC)	ons Program 107
FY 2	001 Accon	nplishments:		
•	1915	ISYSCON Initiate P2 Inc 2 Systems Requirements Analysis		
•	2763	ISYSCON Initiate P2 Inc 2 System Design		
•	2770	ISYSCON Initiate P2 Inc 2 Software Coding		
•	2749	ISYSCON Initiate P2 Inc 2 Software Unit & System Test		
•	1400	TIMS Complete System Engineering (Release 2.1)		
•	1385	TIMS Complete Software Development (Release 2.1)		
•	750	TIMS Conduct Test and Evaluation (Release 2.1)		
•	1900	TIMS Complete Requirements and Analysis (Release 2.2)		
•	1500	TIMS Conduct Operational Assessment(Release 2.1B)		
•	2493	TIMS Complete Systems Engineering(Release 2.2)		
•	3348	TIMS Complete Software Development(Release 2.2)		
•	950	TIMS Conduct Test & Evaluation (Release 2.2)		
•	1000	TIMS Conduct Field Support(Release 2.1 & 2.2)		
•	2475	JNMS Initiate Concept Requirement and Analysis		
•	4025	JNMS Initiate System Design		
•	3591	JNMS Initiate Software Integration		
•	409	JNMS Initiate Training for User Evaluation		
Total	35423			

UDGET A		ITY al system development	PE NUMBER AND TITLE 0208010A - Joint Tactical Communication (TRI-TAC)	ons Program 107
Y 2002 P	lanne	d Program		
460	02	ISYSCON Continue P2 Inc 2 Software Coding		
460	06	ISYSCON Continue P2 Inc 2 Software Unit & System Test		
240	00	ISYSCON Continue P2 Inc 2 Systems Requirement Analysis		
230	00	ISYSCON Continue P2 Inc 2 System Design		
155	50	TIMS Conduct LUT2A (Release 2.2F)		
110	00	TIMS Initiate Requirements and Analysis (Release 2.5)		
175	50	TIMS Initiate Systems Engineering (Release 2.5)		
220		TIMS Initiate Software Development (Release 2.5)		
	20	TIMS Conduct Test & Evaluation (Release 2.5)		
	00	WIN-Tactical Network Management and Associated Activities		
otal 2142	28			
		d Program		
240		ISYSCON Complete P2 Inc 2 Software Coding		
280		ISYSCON Complete P2 Inc 2 Software Unit & System Test		
140		ISYSCON Conduct P2 Inc 2 Regresstion Test		
183		ISYSCON Initiate P2 Inc 3 Software Coding		
80	00	ISYSCON Initiate P2 Inc 3 Software Unit & System Test		
otal 923	33			

ARMY RDT&E BUDGET ITEM . BUDGET ACTIVITY 7 - Operational system development	JUSTIE	PE NUME	BER AND TI 0A - Joi n		,			ary 2002 PROJE m 107	.CT
B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
BX0007 ISYSCON EQ 028010, Project 01D, Tactical Internet Management System (TIMS)	28816	32198 0	31366 4888				3047 0	Continuing 0	Continuing 11002

C. Acquisition Strategy: ISYSCON (V)1&2 Competitive Engineering and Manufacturing Development (EMD) contract was awarded to General Dynamics in September 92. ISYSCON Low Rate Initial Production (LRIP) decision - May 95. First Initial Operational Test and Evaluation (IOT&E) - Mar 1998. Second IOT&E conducted/completed - Oct 98. LRIP systems supported IOT&E. Successful Milestone III - Feb 99 for ISYSCON (V)1 and (V)2. ISYSCON Phase 2 Increment 1 and later versions of software supports the fielding of production systems starting with echelon corps and below units. The next Block Software Release provides Network Management for Echelons Above Corps (EAC), and interoperability with ABCS, JNMS, and WIN-Tactical. ISYSCON production systems include acquisition of Government Furnished Equipment (Common Hardware and Software(CHS)/Standardized Integrated Command Post System(SICPS)) hardware for the integration into system assemblages and fielding.

The Tactical Internet Management System (TIMS) was developed from Army Warfighter Experiments that showed tactical network management and planning to be extremely time consuming. A DD-2028 change to the IS YSCON Requirement Operational Capability (ROC) identified the need for Tactical Internet and Tactical Operation Command (TI and TOC) Local Area Network management. In Mar 99, PDM, Communications Management Systems (CMS) signed a delivery order under the PM, Force XXI Battle Command Brigade and Below (FBCB2) contract with TRW, and another with Raytheon under the PM, Tactical Radio Communications System (TRCS) contract, in response to the DD-2028 requirements. Raytheon is under contract to develop an Enhanced Position/Location Reporting System Network Manager (ENM) capability while TRW will develop the remaining TIMS functionality (TOC LAN MGT, Router Configurations, Tactical Internet Configurer /Tactical Internet Designer, etc.) and integrate the ENM software onto a single platform. The TIMS is closely coupled to FBCB2 program events. An Operation Requirements Document (ORD) is in development to supercede the ISYSCON ROC/2028 Change and will be approved in 2QFY02. Release I of TIMS software was formally tested at the contractor's facility prior to the FBCB2 Customer Test (Apr 00). Release 2.1 was used for the FBCB2 Limited User Test 2 (DCX-1) development test in Jan 00 and Release 2.1B was issued to 4th ID in Feb 01 to support the Division Capstone Exercise at NTC and the FBCB2 Limited User Test 2. Milestone C Limited Deployment was approved Jun 21, 2001. Release 2.2F was assessed at TIMS LUT2A in Dec 01. Software Release 2.5 IOT&E is scheduled for 1QFY03. Full Rate Production and Material Release for TIMS 2.5 is scheduled for 4QFY03. TIMS Release 5.0 will be issued in yearly PDSS & Software Enhancement Releases starting in 4QFY03.

Joint Network Management System (JNMS): TRADOC approved revision 2 to the ORD dated May 00. Milestone A/B approved Aug 2000. A competitive contract was awarded May 14, 2001 on a best value basis for the development and integration of the JNMS software.

ARMY RDT&E BUDGET ITEM JU	STIFICATI	ON (R	-2A Ex	khibit)		February 2002		
BUDGET ACTIVITY 7 - Operational system development			TLE t Tactica l	Commu	nications	s Progran	PROJECT n 107	
D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	
ISYSCON Phase 2 - Increment 2 FQT ISYSCON Phase 2-Increment 3 FQT			3Q		10			
ISYSCON Phase 2 Increment 3 TQT ISYSCON Phase 2 Increment 3 Operational Test ISYSCON Phase 3-Increment 1 FQT					3Q	3Q		
TIMS Milestone C Limited Deployment TIMS Release 2.1	3Q 1Q					30		
TIMS Release 2.2	3Q							
TIMS Milestone C - Limited Deployment TIMS LUT2A Release 2.2F JNMS Contract Award	3Q 30	1Q						

ARMY RDT&E COST ANALYSIS(R-3) February 2002												
BUDGET ACTIVITY 7 - Operational syste	020	PE NUMBER AND TITLE 0208010A - Joint Tactical Communications Program (TRI-TAC) PROJECT 107										
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Target Value of Contract
a . ISYS SW Development	CPAF/CPFF	GDC4S, Taunton, MA	99825	6614	1Q	12229	1Q	7471	1-2Q	Continue	126139	0
b . ISYS Award Fee Contingencies	CPAF	GDC4S, Taunton, MA	5427	901		0		0		0	6328	0
c . ISYS GFE	FFP	GDC4S, Taunton, MA	2239	0		90	1Q	0		0	Continue	0
d . TI MGR (1) Software Development	IDIQ	Raytheon, Fullerton, CA	650	0		0		0		0	650	0
e . TI MGR (2) Software Development	CPFF/TM	TRW, Carson, CA	11309	11834	1Q	5061	1Q	0		0	28204	0
f. TI MGR GFE	FFP	GSA and GDC4S, Taunton, MA	933	550	1Q	0		0		0	1483	0
g . JNMS Development	CPFF/TM/ FFP	SAIC, McLean, VA	0	10408	3Q	0		0		0	10408	0
Subtotal:			120383	30307		17380		7471		Continue	Continue	0

ARMY RDT&E COST ANALYSIS(R-3)										February 2002				
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0208010A - Joint Tactical Communications Program (TRI-TAC) PROX 10									
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Targe Value of Contrac		
Subtotal:			0	0		0		0		0	0	(
III. Test and Evaluation	Contract Method &	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete				
III. Test and Evaluation												Value o Contrac		
a . ISYS Test Support	MIPR	TEXCOM/APG/EPG	2375	200	1Q	175	1Q	200	1Q	Continue	Continue	(
b . ISYS Accreditation	MIPR	Software Engineering Center	0	110	1Q	240	1Q	100	1Q	Continue	Continue	(
	MIPR	TEXCOM/APG/EPG	0	1000	1Q	935	1Q	0		Continue	1935	(
c . TI MGR (V)4 Test Support	1,111 1													
* *	MIPR	Software Engineering Center	0	100	1Q	0		0		0	100	(

ARMY RDT&E COST ANALYSIS(R-3) February 2002 BUDGET ACTIVITY PE NUMBER AND TITLE PROJECT 0208010A - Joint Tactical Communications Program 7 - Operational system development 107 (TRI-TAC) FY 2001 FY 2002 FY 2002 FY 2003 FY 2003 Target IV. Management Services Contract Performing Activity & Total FY 2001 Cost To Total Method & Location PYs Cost Cost Award Cost Award Cost Award Complete Cost Value of Date Date Date Contract Type a . ISYS Contractor Engr 352 10 See remarks MISC 17166 10 355 263 10 Continue Continue b . ISYS Government Engr MIPR MISC 11750 704 10 709 10 819 10 Continue Continue 0 c . ISYS PM Support-Core MIPR 150 1Q 1Q 180 Continue Continue 0 PM WIN-T 1156 180 d . ISYS Travel MIPR MISC Continue Continue 989 150 230 200 0 e . TI MGR Contractor Engr See Remarks MISC 299 438 10 250 20 Continue 987 0 f. TI MGR Govermentt MIPR MISC 556 424 10 773 20 Continue 1753 0 Engr 52 2Q 0 g. TI MGR PM Support -MIPR PM. WIN-T 1Q 61 Continue 113 Core h. TI MGR Travel 285 0 MIPR MISC 65 80 1-4Q 140 1-4Q Continue i . JNMS Contractor Engr See Remarks MISC 0 512 1Q 0 0 512 0 j. JNMS Government Engr MIPR MISC 0 486 1Q 0 0 486 0 k . JNMS PM Support -1Q 0 0 **MIPR** PM. WIN-T 158 158 CORE 1. JNMS Travel MISC MIPR 0 200 1-40 0 0 200 0

ARMY RDT&E COST ANA BUDGET ACTIVITY 7 - Operational system development					JMBER ANI) TITLE	cal Comr	nunicatio	February 2002 PROJECT tions Program 107			
IV. Management Services (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete		Targe Value o Contrac
Subtotal:			31981	3706		2698		1462		Continue	Continue	
Project Total Cost:			154739	35423		21428		9233		Continue	Continue	